

**AMENDMENTS TO THE CLAIMS:**

Claims 86-104 are canceled without prejudice or disclaimer. Claims 105-135 are added. The following is the status of the claims of the above-captioned application, as amended.

**Claims 1-104 (Cancelled)**

**Claim 105 (New).** A method of producing a modified phytase, comprising introducing a mutation in an amino acid sequence of a phytase, wherein the modified phytase has phytase activity and the mutation is at one or more positions selected from the group consisting of: 71; 72; 73; 74; 75; 76; 77; 78; 81; 82; 84; 116; 117; 119; and 120; wherein each position corresponds to the position of the amino acid sequence of the mature P. lycli phytase (SEQ ID NO: 7).

**Claim 106 (New).** The method of claim 105, comprising introducing a mutation at position 71.

**Claim 107 (New).** The method of claim 105, comprising introducing a mutation at position 72.

**Claim 108 (New).** The method of claim 105, comprising introducing a mutation at position 73.

**Claim 109 (New).** The method of claim 105, comprising introducing a mutation at position 74.

**Claim 110 (New).** The method of claim 105, comprising introducing a mutation at position 75.

**Claim 111 (New).** The method of claim 105, comprising introducing a mutation at position 76.

**Claim 112 (New).** The method of claim 105, comprising introducing a mutation at position 77.

**Claim 113 (New).** The method of claim 105, comprising introducing a mutation at position 78.

**Claim 114 (New).** The method of claim 105, comprising introducing a mutation at position 81.

**Claim 115 (New).** The method of claim 105, comprising introducing a mutation at position 82.

- Claim 116 (New). The method of claim 105, comprising introducing a mutation at position 84.
- Claim 117 (New). The method of claim 105, comprising introducing a mutation at position 116.
- Claim 118 (New). The method of claim 105, comprising introducing a mutation at position 117.
- Claim 119 (New). The method of claim 105, comprising introducing a mutation at position 119.
- Claim 120 (New). The method of claim 105, comprising introducing a mutation at position 120.
- Claim 121 (New). The method of claim 105, wherein the mutation comprises a substitution selected from the group consisting of:  
75W,F; 78D,S; 81A,G,Q,E; 82T; 84I,Y,Q,V; 116S; 119E; and 120L.
- Claim 122 (New). The method of claim 105, wherein the phytase is an ascomycete phytase.
- Claim 123 (New). The method of claim 122, wherein the phytase is an *Aspergillus* phytase.
- Claim 124 (New). The method of claim 123, wherein the phytase is an *Aspergillus ficuum*, *Aspergillus fumigatus*, *Aspergillus nidulans*, *Aspergillus niger*, or *Aspergillus terreus* phytase.
- Claim 125 (New). The modified phytase of claim 123, wherein the phytase is an *Aspergillus terreus*, CBS 116.46 phytase.
- Claim 126 (New). The method of claim 105, wherein the phytase is a *Myceliophthora thermophila*, *Talaromyces thermophilus*, or *Thermomyces lanuginosus* phytase.
- Claim 127 (New). The method of claim 126, wherein the phytase is a *Myceliophthora thermophila*, ATCC 34625 or ATCC 74340 phytase.

Claim 128 (New). The method of claim 126, wherein the phytase is a *Talaromyces thermophilus*, ATCC 20186 or ATCC 74338 phytase.

Claim 129 (New). The method of claim 126, wherein the phytase is a *Thermomyces lanuginosus*, NRRL B-21527 phytase.

Claim 130 (New). The method of claim 105, wherein the phytase is an ascomycete consensus phytase sequence.

Claim 131 (New). The method of claim 105, wherein the phytase is a basidiomycete phytase.

Claim 132 (New). The method of claim 131, wherein the phytase is an *Agrocybe pediades*, *Paxillus involutus*, *Peniophora lycii*, or *Trametes pubescens* phytase.

Claim 133 (New). The method of claim 132, wherein the phytase is a *Paxillus involutus*, CBS 100231 phytase.

Claim 134 (New). The method of claim 132, wherein the phytase is a *Paxillus involutus*, CBS 100231 Phy-A2 phytase.

Claim 135 (New). The method of claim 132, wherein the phytase is a *Trametes pubescens*, CBS 100232 phytase.